

F. ACTUARIAL ESTIMATES

Section 201(c)(2) of the Social Security Act requires the Board of Trustees to report annually to the Congress on the operations and status of the OASI and DI Trust Funds during the preceding fiscal year and on the expected operations and status of those trust funds during the ensuing 5 fiscal years. Section 201(c) of the Act also requires that the annual report include "a statement of the actuarial status of the Trust Funds."

The required information for the fiscal year that ended September 30, 1991, is presented in section II.C of this report. Estimates of the operations and status of the trust funds during fiscal years 1992-2001 are presented in this section. In addition, similar estimates for calendar years 1992-2001 are presented. A description of the actuarial status of the trust funds over the next 75 years, including long-range estimates of program income and program costs over that period, is also included in this section. The methods used to estimate the short-range operations of the trust funds and the long-range actuarial status are described in section II.H.

A number of different measures are useful in evaluating the financial status of the trust funds over the next 75 years. In addition to actuarial balance, and summarized income and cost rates, which are described in detail below, these measures include (1) the levels of future annual income and outgo, both in terms of dollars and relative to annual taxable earnings or payroll, including the pattern and ultimate values of such levels; (2) the annual differences between income and outgo, i.e., the annual balances, in dollars and relative to taxable payroll; (3) the size of future fund accumulations, in dollars and relative to future annual expenditures; and (4) the year in which trust fund exhaustion is estimated to occur. Estimates of all these indicators are presented in this section or in the appendices of this report. However, more attention is focused on certain elements of these measures, as described below.

In the short range, the adequacy of the trust fund level is generally measured by the "trust fund ratio," which is defined to be the assets at the beginning of the year expressed as a percentage of the outgo during the year. (For the years 1984-90, the assets at the beginning of the year also included advance tax transfers for the month of January. Assets at the beginning of subsequent years include advance tax transfers only if such transfers are needed to enable the timely payment of benefits.) The

trust fund ratio represents the proportion of a year's outgo which can be paid with the funds available at the beginning of the year. During periods when trust fund disbursements exceed income, as might happen during an economic recession, trust fund assets are used to meet the shortfall. In the event of recurring shortfalls for an extended period, the trust funds can allow sufficient time for the development, enactment, and implementation of legislation to restore financial stability to the program.

The test of financial adequacy over the short-range projection period (the next 10 years), is applicable to each of the OASI and DI Trust Funds, separately, as well as to the combined funds. The requirements of this test are as follows: If the estimated trust fund ratio for a fund is at least 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period. Alternatively, if the ratio is initially less than 100 percent, then it must be projected to reach a level of at least 100 percent by the beginning of the sixth year and to remain at or above 100 percent throughout the remainder of the 10-year period. In addition, the fund's estimated assets at the beginning of each month of the 10-year period must be sufficient to cover that month's disbursements. This test is applied on the basis of the intermediate (alternative II) estimates. Failure to meet this test by either trust fund is an indication that solvency of the program over the next 10 years is in question and that Congressional action is needed to improve the short-range financial adequacy of the program.

Basic to the discussion of the long-range actuarial status are the concepts of "income rate" and "cost rate," each of which is expressed as a percentage of taxable payroll. The annual income rate is the ratio of income from revenues (payroll tax contributions and income from the taxation of benefits) to the OASDI taxable payroll for the year. The OASDI taxable payroll consists of the total earnings which are subject to OASDI taxes, with some relatively small adjustments.¹ Because the taxable payroll reflects these adjustments, the annual income rate can be defined to be the sum of the OASDI combined employee-employer contribution rate (or the payroll-tax rate) scheduled in the law and the rate of income from taxation of benefits (which is, in turn, expressed as a percentage of taxable payroll). As such, it excludes reimbursements from the general fund of the Treasury for the costs associated with special

¹Adjustments are made to include, after 1982, deemed wage credits based on military service, and to reflect the lower effective tax rates (as compared to the combined employee-employer rate) which apply to multiple-employer "excess wages," and which did apply, before 1984, to net earnings from self-employment and, before 1988, to income from tips.

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monthly payments to certain uninsured persons who attained age 72 before 1968 and who have fewer than 3 quarters of coverage, transfers under the interfund borrowing provisions, and net investment income.

The annual cost rate is the ratio of the cost (or outgo, expenditures, or disbursements) of the program to the taxable payroll for the year. In this context, the outgo is defined to include benefit payments, special monthly payments to certain uninsured persons who have 3 or more quarters of coverage (and whose payments are therefore not reimbursable from the general fund of the Treasury), administrative expenses, net transfers from the trust funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries; it excludes special monthly payments to certain uninsured persons whose payments are reimbursable from the general fund of the Treasury (as described above), and transfers under the interfund borrowing provisions. For any year, the income rate minus the cost rate is referred to as the "balance" for the year. (In this context, the term "balance" does not represent the assets of the trust funds, which are sometimes referred to as the "balance" in the trust funds.)

The long-range actuarial status of the trust funds has generally been summarized by the calculation of the "actuarial balance." The actuarial balance for a specified valuation period is defined as the difference between the summarized income rate and the summarized cost rate over that period. The summarized income rate over a period of years is equal to the ratio of (a) the sum of the trust fund balance at the beginning of the period plus the present value of the total income (excluding interest earnings) during the period, to (b) the present value of the taxable payroll for the years in the period. The summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of a targeted trust fund level at the end of the period equal to the following year's outgo to (b) the present value of the taxable payroll for the years in the period. A targeted ending trust fund level of 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies; thus, in addition to the total outgo during the projection period, the summarized cost rate includes the cost of reaching and maintaining a target trust fund ratio of 100 percent through the end of the projection period.

The present-value calculations take account of the effect of interest on future income and outgo. In calculating the present value of future

income, for example, the income in each year of the projection period is discounted to the beginning of the period using the interest rate assumed for calculating the interest earnings of the trust funds during the period. Thus, the calculations of the summarized income and cost rates are consistent with the estimates of trust fund operations over the projection period.

If the program is in exact actuarial balance for a particular period (that is, if the actuarial balance is zero), then the present value of estimated future income for all years in the period, plus the beginning trust fund balance, is exactly equal to the present value of estimated future expenditures for all years in the period, plus the present value of targeted trust fund assets at the end of the period in the amount of the next year's estimated outgo. A negative actuarial balance indicates that future estimated income and the beginning trust fund balance together are not sufficient to accumulate to the level of the targeted assets while also covering all estimated expenditures in the period. A positive actuarial balance indicates that in addition to covering all estimated expenditures in the period, the estimated ending trust fund assets are more than the targeted level.

The size of the actuarial balance represents a measure of the program's financial adequacy for the period in question. The actuarial balance can be interpreted as that amount which, if added to the combined employee-employer contribution rate scheduled under present law for each of the next 75 years, would bring the program into exact actuarial balance. Of course, there are any number of different ways to increase taxes or to reduce expenditures, as well as different combinations of such changes, that would have an equivalent effect on the actuarial balance. Any one of these different sets of changes would, therefore, bring the program into exact actuarial balance.

The long-range test of close actuarial balance applies to a set of valuation periods beginning with the first 10 years and continuing through the first 11 years, the first 12 years, etc., up to and including the full 75-year projection period. Under the long-range test, summarized income rates and cost rates are calculated for each of the 66 valuation periods in the full 75-year long-range projection period, with the first of these periods consisting of the next 10 years. Each succeeding period becomes longer by 1 year, culminating with the period consisting of the next 75 years. The long-range test is met if, for each of the 66 time periods, the actuarial balance is not less than zero or is negative by, at

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most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 5 percent for the full 75-year period. For shorter periods, the allowable percentage begins with zero for the first 10 years and increases uniformly for longer periods, until it reaches the maximum percentage of 5 percent allowed for the 75-year period. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years.

When a negative actuarial balance in excess of the allowable percentage of the summarized cost rate is projected for one or more of the 66 separate valuation periods, the program fails the long-range test of close actuarial balance. Being out of close actuarial balance indicates that the program is expected to experience financial problems in the future and that ways of improving the financial status of the program should be considered. The sooner the actuarial balance is less than the minimum allowable balance, expressed as a percentage of the summarized cost rate, the more urgent is the need for corrective action. However, it is recognized that necessary changes in program financing or benefit provisions should not be put off until the last possible moment if future beneficiaries and workers are to be able to effectively plan for their retirement.

It was noted earlier in this section that in addition to the measures used in the tests of the overall financial condition of the program, other financial measures are also presented in this report. All of these measures are important factors in arriving at a full understanding of the financial position of the OASDI program.

1. Operations and Status of the Trust Funds During the Period October 1, 1991, to December 31, 2001

This subsection presents estimates of the operations and status of the OASI and DI Trust Funds during the period October 1, 1991, to December 31, 2001, based on the assumptions described in the preceding two sections. No changes are assumed to occur in the present statutory provisions and regulations under which the OASDI program operates.¹

These estimates indicate that the assets of the OASI Trust Fund would continue to increase rapidly throughout the next 10 years under each of the three sets of assumptions shown. In contrast, the estimates indicate a high probability that the assets of the DI Trust Fund would be depleted within the next 10 years in the absence of corrective legislation. Under the alternative II assumptions, DI assets would decline steadily and would become insufficient to permit the timely payment of benefits in 1997. Based on the more pessimistic alternative III assumptions, DI assets would be depleted in 1995. Only under the more optimistic alternative I assumptions would DI assets be sufficient to meet benefit payments throughout the 10-year projection period—and even then the margin for safety would be narrow.

As will be shown later in this subsection, the OASI Trust Fund meets the requirements of the Trustees' test of short-range financial adequacy, but the DI Trust Fund fails to do so. The OASI and DI Trust Funds, if combined, would pass the test. The failure of the DI Trust Fund to meet the requirements of the test and, in particular, the projected depletion of the fund, are clear indications that the financial position of the DI program needs to be strengthened.

¹ The estimates shown in this subsection reflect 12 months of benefit payments in each year of the short-range projection period. In practice, 13 benefit payments can be made in certain years, with the next year having only 11 payments. This situation can result from the statutory requirement that benefit checks be delivered early when the normal check delivery date is a Saturday, Sunday, or legal public holiday. For example, the benefit checks for December 1992 would normally be delivered on January 3, 1993; however, because that day will be a Sunday, and the two preceding days a Saturday and a holiday, the checks will actually be delivered on December 31, 1992. The annual benefit figures are shown as if those benefit checks will be delivered on the usual date.

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a. OASI Trust Fund Operations

Estimates of the operations and status of the OASI Trust Fund during calendar years 1992-2001 are shown in table II.F.1 based on each of the three alternative sets of assumptions. Actual operations for calendar year 1991 are also shown in the table.

The increases in estimated income shown in table II.F.1 on the basis of each set of assumptions reflect increases in estimated taxable earnings. For each alternative, employment and earnings are assumed to increase in every year through the year 2001 (with the exceptions that employment is estimated to decline in 1992, compared to 1991, and is projected to decline temporarily again during each of the economic recessions assumed under alternative III). The number of persons with taxable earnings under the OASDI program is expected to increase on the basis of alternatives I, II, and III, from 132 million during calendar year 1991 to about 149 million, 145 million, and 142 million, respectively, by 2001. The total annual amount of taxable earnings is expected to increase from about \$2,437 billion in 1991 to \$4,473 billion, \$4,331 billion, and \$4,410 billion, in 2001, on the basis of alternatives I, II, and III, respectively. (In 1991 dollars—taking account of assumed increases in the CPI from 1991 to 2001 based on each alternative—the estimated amounts of taxable earnings in 2001 are \$3,353 billion, \$2,993 billion, and \$2,680 billion, on the basis of alternatives I, II, and III, respectively.) These increases are due in part to the increases in the contribution and benefit base in 1992-2001 under the automatic-adjustment provisions. The increases in taxable earnings are also due to (1) projected increases in employment levels and average earnings in covered employment, and (2) various provisions enacted in 1983-90, including the mandatory coverage of all newly hired Federal civilian employees, the voluntary coverage of certain Federal employees who were not previously covered, and the mandatory coverage of certain employees of State and local governments.

**TABLE II.F.1.—ESTIMATED OPERATIONS OF THE OASI TRUST FUND
BY ALTERNATIVE, CALENDAR YEARS 1991-2001**

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Trust fund	
					Amount ¹	Ratio ²
1991 ³	\$299.3	\$245.6	\$53.7	\$267.8	\$214.2	87
Alternative I:						
1992	309.6	259.7	49.9	317.7	267.8	103
1993	335.3	271.7	63.6	381.3	317.7	117
1994	360.5	284.1	76.5	457.7	381.3	134
1995	385.2	296.9	88.3	546.1	457.7	154
1996	415.2	309.9	105.3	651.3	546.1	176
1997	445.4	323.4	121.9	773.3	651.3	201
1998	478.1	337.5	140.6	913.9	773.3	229
1999	512.9	352.6	160.2	1,074.1	913.9	259
2000	541.2	368.7	172.5	1,246.6	1,074.1	291
2001	579.6	385.9	193.8	1,440.4	1,246.6	323
Alternative II:						
1992	307.3	260.0	47.3	315.2	267.8	103
1993	329.9	273.3	56.6	371.8	315.2	115
1994	352.3	287.8	64.5	436.3	371.8	129
1995	375.2	302.9	72.3	508.6	436.3	144
1996	402.0	319.7	82.2	590.9	508.6	159
1997	429.5	337.3	92.2	683.0	590.9	175
1998	459.6	355.7	103.9	786.9	683.0	192
1999	492.1	375.4	116.7	903.7	786.9	210
2000	518.4	396.3	122.1	1,025.8	903.7	228
2001	554.2	418.6	135.6	1,161.4	1,025.8	245
Alternative III:						
1992	305.3	260.3	45.1	312.9	267.8	103
1993	329.0	276.1	53.0	365.9	312.9	113
1994	357.2	296.3	60.8	426.7	365.9	123
1995	385.3	321.0	64.3	491.0	426.7	133
1996	404.2	345.4	58.8	549.8	491.0	142
1997	434.4	367.1	67.3	617.1	549.8	150
1998	465.6	390.9	74.8	691.8	617.1	158
1999	497.4	416.2	81.2	773.0	691.8	166
2000	522.7	443.4	79.3	852.3	773.0	174
2001	557.2	472.6	84.6	936.9	852.3	180

¹Represents assets at beginning of year.

²Represents amounts shown in preceding column as a percentage of disbursements during the year. See text concerning interpretation of these ratios.

³Figures for 1991 represent actual experience.

Note: Totals do not necessarily equal the sums of rounded components.

Rising disbursements during calendar years 1992-2001 reflect the assumed automatic benefit increases previously shown, as well as the long-range upward trend in the numbers of beneficiaries and in the amounts of average monthly earnings underlying benefits payable by the program. The growth in the number of beneficiaries in the past and the expected growth in the future result both from the increase in the aged population and from the increase in the proportion of the population which is eligible for benefits. The latter increase is primarily due to various amendments enacted after 1950 which modified eligibility provisions and extended coverage to additional categories of employment.

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Growth has also occurred, and will continue to occur, in the proportion of eligible persons who, in fact, receive benefits. This growth is due to several factors, among which are (1) the amendments enacted since 1950 which affect the conditions governing the receipt of benefits and (2) the increasing percentage of eligible persons who are aged 70 and over and who therefore may receive benefits regardless of earnings.

The estimates shown in table II.F.1 indicate that income to the OASI Trust Fund would substantially exceed disbursements in every year of the short-range projection period, based on each of the three alternative sets of assumptions used in this report. The assets of the OASI Trust Fund at the beginning of 1991 were equal to 87 percent of the fund's disbursements in 1991. As described in the introduction to this section, this ratio is known as the "trust fund ratio;" it provides a useful measure of the relative level of trust fund assets. During 1991, income exceeded disbursements by \$53.7 billion. As a result, the trust fund ratio increased to 103 percent at the beginning of 1992.

Assets are estimated to increase substantially in each year of the short-range projection period, based on each of the three alternative sets of assumptions. The increase in the trust fund ratio from 103 percent at the beginning of 1992 to the range of 180-323 percent at the beginning of the year 2001 is due, in part, to the increases in the OASI tax rate that became effective in 1988 and 1990. Asset growth is also assisted by the increases in taxable earnings during 1982-88 that exceeded the rate of growth in benefit payments and the expected continuation of this experience in 1992 and later (except for certain years under alternative III).

As noted in section II.B, the portion of the OASI Trust Fund that is not needed to meet day-to-day expenditures is used to purchase investments, generally in special public-debt obligations of the U.S. Government. The cash used to make these purchases becomes part of the general fund of the Treasury and is used to meet various Federal outlays. Interest is paid to the trust fund on these securities and, when the securities mature or are redeemed prior to maturity, general fund revenues are used to repay the principal to the trust fund. Thus, the investment operations of the trust fund result in various cash flows between the trust fund and the general fund of the Treasury.

Currently, the excess of tax income to the OASI Trust Fund over the fund's expenditures results in a substantial net cash flow from the trust

fund to the general fund. Sometime after the turn of the century, as shown in the following subsection, this cash flow will reverse; as trust fund securities are redeemed to meet benefit payments and other expenditures, revenue from the general fund of the Treasury will be drawn upon to provide the necessary cash. The accumulation and subsequent redemption of substantial trust fund assets has important public policy and economic implications that go well beyond the operation of the OASDI program itself. Discussion of these broader issues exceeds the scope of this report.

Based on the alternative II assumptions, assets of the OASI Trust Fund exceed 100 percent of annual expenditures at the beginning of 1992 and would remain well above the 100-percent level through the end of the year 2001. Consequently, the OASI Trust Fund satisfies the test of short-range financial adequacy by a wide margin. The estimates in table II.F.1 also indicate that the short-range test would be satisfied even under the adverse conditions assumed in alternative III.

In interpreting the trust fund ratios in table II.F.1, it should be noted that at the beginning of any month there must be sufficient assets on hand to meet the benefit payments that are payable at the beginning of that month. The specific minimum amount of assets required for this purpose depends on a number of factors and varies somewhat from month to month. Assets of roughly 8 to 9 percent of annual expenditures are generally considered sufficient for this purpose (although the actual minimum level can be somewhat less in some months). Therefore, the difference between the estimated trust fund ratios shown in table II.F.1, and the minimum level of roughly 8-9 percent, represents the reserve available to handle adverse contingencies.

b. DI Trust Fund Operations

The estimated operations and status of the DI Trust Fund during calendar years 1992-2001 on the basis of the three sets of assumptions are shown in table II.F.2, together with figures on actual experience in 1991. On the basis of each alternative, income is estimated to increase steadily during 1992-2001. This increase reflects the same factors described previously in connection with the OASI Trust Fund.

Disbursements are estimated to increase because of automatic benefit increases and because of projected increases in the amounts of average

monthly earnings on which benefits are based. In addition, on the basis of all three sets of assumptions, the number of DI beneficiaries is projected to continue increasing throughout the short-range projection period. The projected growth in the number of DI beneficiaries is attributable to a number of factors, including (1) gradual increases in the number of persons estimated to be insured for disability benefits, (2) assumed increases in the proportion of those insured who apply for and are awarded disability benefits, and (3) an assumed slight decline in the proportion of disabled worker beneficiaries whose benefits terminate each year as a result of death, recovery, or attainment of normal retirement age.

The proportion of insured workers who apply for and are awarded disability benefits in a given year is referred to as the "disability incidence rate." This rate has fluctuated substantially in past years and the causes for the variation have not been precisely determined. Incidence rates increased during 1970-75, declined during 1976-82, increased again during 1983-85, and remained steady during 1986-89. In 1990 and 1991 the incidence rate resumed increasing, with unusually rapid increases (on a relative basis) of 8 percent and 13 percent, respectively.

The rapid increases in disability benefit applications and awards during 1990-91 are thought to be attributable, in part, to the rise in unemployment associated with the recent slowdown in the economy (although the evidence is somewhat inconclusive). Other explanatory factors may include changes to the conditions governing receipt of disability benefits, as introduced through recent legislation, regulations, and court decisions, and increased awareness of the DI program by the public. It is also possible that disability awards have been processed faster than denial decisions, to minimize the effects of the extremely heavy workloads imposed by the large increase in the number of applications for disability benefits.

Although an increasing trend in disability incidence rates has been projected in past annual reports, the actual increases since 1982 have frequently been larger than expected. In particular, the experience in 1990 and 1991 exceeded the assumptions in prior annual reports by a wide margin. Due to the extreme variation exhibited by incidence rates in the past and the difficulty in determining reliable explanatory factors for this variation, any projection of future incidence rates will be necessarily uncertain. In this report, with the exception of alternative I, disability incidence rates are assumed to increase gradually throughout

the short-range period but are not assumed to return to the highest levels experienced during the 1970s. Under alternative I, incidence rates are assumed to decline slightly from the level in 1991.

The proportion of DI beneficiaries whose benefits terminate in a given year has also fluctuated significantly in the past. Over the last 20 years, the rates of benefit termination due to death or conversion to retirement benefits at attainment of normal retirement age have declined very gradually. This trend is attributable, in part, to the lower average age of new beneficiaries. The termination rate due to recovery has been much more volatile. Currently, the proportion of disabled beneficiaries whose benefits cease because of their recovery from disability is very low in comparison to past levels.

In this report, termination rates due to attainment of normal retirement age are estimated to continue their downward trend through about 2000; terminations due to death or recovery are assumed to increase somewhat from their current level. The aggregate termination rates projected under alternatives I and II are slightly higher than the most recent actual value for the first few years, decline gradually thereafter, and are projected to level off by the year 2001. Under alternative III, termination rates are projected to continue declining gradually during 1992-99, before leveling off at the end of the short-range projection period. As will be described later in this section, these termination rate assumptions represent a substantial downward adjustment from the assumptions used in the 1991 and prior annual reports.

TABLE II.F.2.—ESTIMATED OPERATIONS OF THE DI TRUST FUND BY ALTERNATIVE, CALENDAR YEARS 1991-2001

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in fund	Fund at end of year	Trust fund	
					Amount ¹	Ratio ²
1991 ³	\$30.4	\$28.6	\$1.8	\$12.9	\$11.1	39
Alternative I:						
1992.....	31.3	30.8	.5	13.4	12.9	42
1993.....	33.7	32.4	1.3	14.7	13.4	41
1994.....	36.1	34.3	1.8	16.5	14.7	43
1995.....	38.4	36.4	2.0	18.5	16.5	45
1996.....	41.1	38.8	2.3	20.8	18.5	48
1997.....	43.8	41.3	2.5	23.3	20.8	50
1998.....	46.6	44.2	2.4	25.7	23.3	53
1999.....	49.5	47.2	2.3	28.0	25.7	54
2000.....	61.6	50.6	11.0	39.0	28.0	55
2001.....	66.4	54.2	12.3	51.2	39.0	72
Alternative II:						
1992.....	31.1	31.4	-.3	12.6	12.9	41
1993.....	33.1	33.8	-.8	11.8	12.6	37
1994.....	35.0	36.6	-1.6	10.2	11.8	32
1995.....	36.8	39.7	-2.9	7.3	10.2	26
1996.....	38.8	43.3	-4.4	2.9	7.3	17
1997 ⁴	40.9	47.1	-6.3	-3.4	2.9	6
1998 ⁴	43.0	51.4	-8.4	-11.8	(⁵)	(⁵)
1999 ⁴	45.1	56.0	-10.9	-22.8	(⁵)	(⁵)
2000 ⁴	55.9	61.0	-5.0	-27.8	(⁵)	(⁵)
2001 ⁴	59.8	66.3	-6.5	-34.3	(⁵)	(⁵)
Alternative III:						
1992.....	30.8	31.9	-1.1	11.8	12.9	40
1993.....	32.8	35.2	-2.4	9.5	11.8	34
1994.....	35.1	39.4	-4.3	5.2	9.5	24
1995 ⁴	37.0	44.5	-7.5	-2.3	5.2	12
1996 ⁴	37.8	50.0	-12.2	-14.5	(⁵)	(⁵)
1997 ⁴	39.5	55.6	-16.1	-30.6	(⁵)	(⁵)
1998 ⁴	41.1	62.1	-21.0	-51.6	(⁵)	(⁵)
1999 ⁴	42.4	69.1	-26.7	-78.3	(⁵)	(⁵)
2000 ⁴	52.4	76.7	-24.4	-102.7	(⁵)	(⁵)
2001 ⁴	55.0	84.8	-29.8	-132.5	(⁵)	(⁵)

¹Represents assets at beginning of year.

²Represents amounts shown in preceding column as a percentage of disbursements during the year. See text concerning interpretation of these ratios.

³Figures for 1991 represent actual experience.

⁴Under alternative II, the DI Trust Fund would be depleted in 1997, when assets would become insufficient to pay benefits on time. Under alternative III, depletion would occur in 1995. Thus, figures shown under each alternative for year of depletion and later are theoretical. See text for details.

⁵Fund depleted.

Note: Totals do not necessarily equal the sums of rounded components.

The continuing spread of Acquired Immunodeficiency Syndrome (AIDS) has contributed to the recent increases in DI awards.¹ Due to

¹ Although the number of disability benefit awards is higher as a result of AIDS, this effect has been fully reflected in the projections shown in the last several annual reports. Thus, the greater number of awards due to AIDS does not account for the unexpectedly large increases in awards experienced in 1990 and 1991.

the extremely high mortality rates of affected individuals, the total number of disabled workers currently receiving benefits has not increased greatly as a result of AIDS. Although many aspects of AIDS are well understood, there remains considerable uncertainty regarding future medical advances and future incidence of the disease. To reflect this uncertainty, the projected numbers of benefit awards to AIDS patients (and their projected longevity) are varied by alternative. Under the intermediate set of assumptions, benefit awards to persons with AIDS are projected to continue to increase through 1998, before beginning to decline. Under alternative I the number of new awards begins to decline in the near future, while the number projected under alternative III increases at a rapid rate throughout the short-range period.

At the beginning of calendar year 1991, the assets of the DI Trust Fund represented 39 percent of annual expenditures. During 1991, DI income exceeded DI expenditures by \$1.8 billion, with the result that the trust fund ratio for the beginning of 1992 increased slightly, to about 41 percent. Under the intermediate assumptions, income is estimated to fall short of expenditures in each year of the short-range projection period, thereby requiring the redemption of Treasury securities held by the trust fund to cover the shortfalls. Consequently, the assets of the DI Trust Fund are estimated to decline steadily. By the beginning of 1997, assets would represent only 6 percent of annual expenditures and would be barely sufficient to meet the benefit payments due in the first month.¹ Shortly thereafter, the low level of assets would trigger advance tax transfers under section 201(a) of the Social Security Act. The availability of each month's tax income in advance, at the beginning of the month, would postpone the depletion of the trust fund for several more months. Before the end of 1997, however, assets (including advance tax transfers) would become insufficient to meet benefit payments when due without corrective legislation.

Under the more favorable economic and demographic conditions assumed in alternative I, income to the DI Trust Fund would exceed expenditures through the year 2001, although the margin would be narrow prior to 2000.² Based on these assumptions, the DI trust fund

¹ As noted previously in this subsection, assets of 8 to 9 percent of annual expenditures are generally required to meet the benefit payments falling due at the beginning of a given month. This requirement varies somewhat, however, depending on the specific income, expenditures, and calendar for a particular month, and can be somewhat lower than the usual minimum range. In the case of the DI Trust Fund at the beginning of 1997, the projected level of 6 percent of annual expenditures, together with income received in the first few days of the month, would be just sufficient to cover the beginning-of-month benefits.

² As noted in section II.B, the tax rate allocated to the DI Trust Fund is scheduled under present law to increase from 0.60 percent for employees and employers, each, to 0.71 percent starting in the year 2000.

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ratio would increase slowly during 1992-99, reaching 55 percent by the beginning of 2000, and would increase somewhat more rapidly after 1999.

Under the less favorable conditions assumed for alternative III, DI assets would decline rapidly in the absence of corrective legislation and would become insufficient to pay benefits when due starting in 1995.

Because DI assets fail to reach the level of 1 year's expenditures under the alternative II assumptions and would be insufficient to meet benefit payments when due in 1997 and later, the DI Trust Fund does not satisfy the Trustees' short-range test of financial adequacy. Accordingly, in the opinion of the Trustees, the financial position of the DI program should be strengthened.

c. Combined OASI and DI Trust Fund Operations

The estimated operations and status of the OASI and DI Trust Funds, combined, during calendar years 1992-2001 on the basis of the three alternatives, are shown in table II.F.3, together with figures on actual experience in 1991. These amounts are generally the sums of the corresponding figures shown in tables II.F.1 and II.F.2. An exception is made for 1998 and later under alternative II, and for 1996 and later under alternative III, due to the depletion of the DI Trust Fund. For these years, the trust fund amount shown for OASI and DI combined excludes the DI advance tax transfers that would be reinstated under present law. This adjustment is made to facilitate analysis of how the program would operate if the two trust funds were combined into one, or if tax rates were reallocated between the funds.

TABLE II.F.3.—ESTIMATED OPERATIONS OF THE OASI AND DI TRUST FUNDS, COMBINED, BY ALTERNATIVE, CALENDAR YEARS 1991-2001

[Amounts in billions]

Calendar year	Income	Disbursements	Net increase in funds	Funds at end of year	Trust fund	
					Amount ¹	Ratio ²
1991 ³	\$329.7	\$274.2	\$55.5	\$280.7	\$225.3	82
Alternative I:						
1992	340.9	290.5	50.4	331.1	280.7	97
1993	369.0	304.1	64.8	396.0	331.1	109
1994	396.6	318.4	78.2	474.2	396.0	124
1995	423.6	333.3	90.3	564.5	474.2	142
1996	456.3	348.7	107.6	672.1	564.5	162